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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,315	04/20/2004	Jung-hyuck Cho	1349.1359	2582
21171	7590	11/29/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			CHERRY, EUNCHA P	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/827,315

Applicant(s)

CHO, JUNG-HYUCK

Examiner

EUNCHA P. CHERRY

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2872

AM

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/20/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 7-11 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Paoli.

Paoli discloses a laser scanning unit (Figs. 1 and 2) comprising a light source unit generating a plurality of laser beams (104), a horizontal polarizer arranged on an optical axis of at least one of the plurality of laser beams (column 5, lines 7-9); a vertical polarizer arranged on all of the other optical axis of the plurality of laser beams (column 5, lines 9-13); a polygon mirror deflecting a horizontally-polarized beam and a vertically-polarized beam respectively generated by the horizontal and the vertical polarizers within a range of a predetermined angle (110); and an optical filter passing a horizontally-polarized beam of the plurality of polarized beams deflected by the polygon mirror, and reflecting a vertically-polarized beam at a specified angle from the horizontally-

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polarized beam (210), further comprising at least one collimating lens between the light source unit and the horizontal and the vertical polarizers (108) to transform the laser beams into parallel beams, further comprising at least one $f\theta$ lens between the polygon mirror and the optical filter (118), wherein the optical filter is a beam splitter (210 is a beam splitter) and is a glass having a curvature to form a Brewster's angle (inherent feature). Further, the laser scanning unit comprising a first optical filter passing the horizontally-polarized beam reflected by the polygon mirror and reflecting the vertically-polarized beam (212), a second optical filter reflecting the horizontally-polarized beam deflected by the polygon mirror and passing the vertically-polarized beam (220) and a plurality of mirrors reflecting laser beams from the first and second optical filters onto a plurality of photosensitive media (214, 228, 230, 224, 222, 234).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

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art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 4, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paoli in view of Kawata et al (5,636,049).

Paoli discloses the claimed invention as set forth above except for the cylindrical lens that is disposed between the laser source and the polarizers. Kawata et al discloses the cylindrical lens (Fig. 3, 7) that is disposed between the laser source (1, 2) and the polarizers (11). It would have been obvious to one of ordinary skill in the art to include a cylindrical lens along the optical beam as taught by Kawata et al for the purpose of condensing beams so that there are no loss of optical scanning beams.

5. Claims 5, 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paoli.

Paoli discloses the claimed invention as set forth above except for the group of mirror disposed between the light source and the polarizers. It would have been obvious to one of ordinary skill in the art to include the group of mirrors along the optical beam for the purpose of increasing intensity of optical scanning beams.

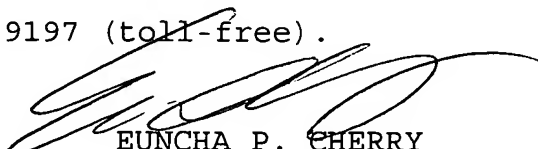
Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to EUNCHA P. CHERRY whose telephone number is 571-272-2310. The examiner can normally be reached on M-F 6:30-4:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DREW DUNN can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300..

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EUNCHA P. CHERRY
Primary Examiner
Art Unit 2872

11/28/05